

IN THE CLAIMS

This listing of claims replaces all prior versions, and listings, in this application.

1. (currently amended) A process for the proteolytic hydrolysis of a peptide or a polypeptide, said peptide or polypeptide comprising 4 to 40, ~~preferably 5 to 35~~, amino acid residues and said peptide or polypeptide is not hydrolysable by subtilisin, the process comprising hydrolysing ~~whereby~~ said peptide or polypeptide with ~~is hydrolyse~~ by a proline specific endo protease at a pH of 6.5 or lower, ~~preferably 5.5 or lower and more preferably 5.0 or lower to hydrolyse said peptide or polypeptide.~~
2. (currently amended) A process for the proteolytic hydrolysis of a peptide or a polypeptide, said peptide or polypeptide comprising 4 to 40, ~~preferably 5 to 35~~ amino acid residues and comprising the tripeptide motif Glu-Xxx-Pro, Gln-Xxx-Pro, Tyr-Pro-Phe or Tyr-Pro-Trp, the process comprising hydrolysing ~~whereby~~ said peptide or polypeptide with ~~is hydrolyse~~ by a proline specific endo protease at a pH of 6.5 or lower, ~~preferably 5.5 or lower and more preferably 5.0 or lower to hydrolyse said peptide or polypeptide.~~
3. (currently amended) A process for the proteolytic hydrolysis of a peptide or a polypeptide, said peptide or polypeptide comprising 4 to 40, ~~preferably 5 to 35~~ amino acid residues, and whereby the amino acid residues of the peptide or polypeptide comprises for at least 30%, ~~preferably at least 40%~~, proline and/or glutamine residues, the process comprising hydrolysing ~~whereby~~ said peptide or polypeptide with ~~is hydrolyse~~ by a proline specific endo protease at a pH of 6.5 or lower, ~~preferably 5.5 or lower and more preferably 5.0 or lower to hydrolyse said peptide or polypeptide~~ with the proviso that the peptide or polypeptide comprises at least 10% ~~[[of]]~~ proline residues.
4. (previously presented) A process according to claim 1 whereby the peptide or polypeptide comprises the tripeptide motif Glu-Xxx-Pro or Gln-Xxx-Pro and contains 9 or more amino acid residues.

5. (original) A process according to claim 4 whereby said peptide or polypeptide is hydrolyse into a peptide containing 8 or less amino acid residues.
6. (original) A process according claim 2 whereby the peptide or polypeptide comprises the motif Tyr-Pro-Phe or Tyr-Pro-Trp and whereby a peptide bond between Pro and Phe or Pro-Trp of the Tyr-Pro-Phe or Tyr-Pro-Trp motif is hydrolysed.
7. (previously presented) A process according to claim 1 wherein a proline specific endo protease derived from *Aspergillus* or belonging to the S28 family of serine proteases is used.
8. (currently amended) A method of using ~~Use of a~~ proline specific endo[[]]protease having a pH optimum below 6.5, ~~preferably below 5.5, more preferably below 5.0~~ to hydrolyse a peptide or polypeptide comprising 4 to 40, ~~preferably 5 to 35~~ amino acid residues that is not hydrolysable by subtilisin, the method comprising administering a dietary supplement comprised of said proline specific endoprotease for ingestion by a patient in need thereof.
9. (currently amended) A method of using ~~Use of a~~ proline specific endoprotease to hydrolyse at a pH of below 5.5, proline rich peptides which are brought in relation with a psychiatric disorders ~~including~~ selected from the group consisting of autism, schizophrenia, ADHD, bipolar mood disorder and depression or a [[and]] celiac disease linked disorder[[s]] like autoimmune disorders, ~~especially~~ selected from the group consisting of type 1 diabetes, dermatitis herpetiformis, autoimmune thyroiditis, collagen diseases, autoimmune alopecia, [[and]] autoimmune hepatitis and IBS, the method comprising administering a dietary supplement comprised of said proline specific endoprotease for ingestion by a patient in need thereof.

10. (currently amended) A method of using ~~Use of~~ a proline specific endoprotease to produce food, ~~for example beer or bread~~ which is devoid of celiac related epitopes, the method comprising digesting food with said proline specific endoprotease, preferably gluten epitopes, more preferably wheat or barley epitopes.

11. (currently amended) A method of using a proline ~~Proline~~-specific endoprotease having a pH optimum below 6.5, the method comprising administering said proline specific endoprotease for ingestion by a patient in need thereof, preferably below 5.5, more preferably below 5.0 for use as a medicament or for the use in manufacturing a medicament.

12. (currently amended) The method according to ~~Proline~~-specific endoprotease of claim 11, wherein the proline specific endoprotease which is an *Aspergillus*, preferably an *Aspergillus niger* enzyme.

13. (currently amended) A method of using a ~~Use of~~ proline specific endoprotease having a pH optimum below 6.5, ~~preferably below 5.5, more preferably below 5.0 for the manufacture of~~ as a dietary supplement or a medicament for treatment or prevention of a psychiatric disorders including selected from the group consisting of autism, schizophrenia, ADHD, bipolar mood disorder and depression ~~and celiac disease linked disorder[[s]] like autoimmune disorders, especially type 1 diabetes, dermatitis herpetiformis, autoimmune thyroiditis, collagen diseases, autoimmune alopecia and autoimmune hepatitis and IBS,~~ the method comprising administering said dietary supplement or medicament to a patient in need thereof.

14. (currently amended) A method of using ~~Use of~~ a proline specific endoprotease having a pH optimum below 6.5, ~~preferably below 5.5, more preferably below 5.0 for the manufacture of~~ a dietary supplement or a medicament for an individual[[s]] below the age of 25 years, the method comprising administering said dietary supplement or medicament to a patient in need thereof.

15. (currently amended) A method of using a ~~Use of~~ proline specific endoprotease having a pH optimum below 6.5, ~~preferably below 5.5, more preferably below 5.0 for as~~ a dietary supplement or a medicament for treatment or preventing of ~~psychiatric disorders including autism, schizophrenia, ADHD, bipolar mood disorder and depression and~~ a celiac disease linked disorder[[s]] like autoimmune disorders, especially selected from the group consisting of type 1 diabetes, dermatitis herpetiformis, autoimmune thyroiditis, collagen diseases, autoimmune alopecia, [[and]] autoimmune hepatitis and IBS, the method comprising administering said dietary supplement or medicament to a patient in need thereof.

Claims 16-17 (canceled)

18. (currently amended) The method according to ~~Use of~~ proline specific endoprotease of claim 9, wherein ~~whereby~~ the proline specific endoprotease is an *Aspergillus*, preferably an *Aspergillus niger* enzyme.

19. (currently amended) A method of using ~~Use of~~ a proline specific endoprotease having a pH optimum below 6.5, ~~preferably below 5.5, more preferably below 5.0 as a dietary supplement, as or a medicament,~~ the method comprising adding said proline specific endoprotease to ~~for the production of a dietary supplement, for the production of a medicament or for the production of feed including pet food, intended for a non-human animal, preferably a mammal.~~

20. (new) A method of treatment or prevention of a celiac disease linked disorder, the method comprising administering by oral ingestion a dietary supplement or a medicament comprising a proline specific endoprotease having a pH optimum below 6.5 to a patient in need thereof.

21. (new) The method according to claim 20, wherein the proline specific endoprotease is an *Aspergillus* enzyme.

22. (new) The method according to claim 20, wherein the proline specific endoprotease is an *Aspergillus niger* enzyme.